| Index o | of Claims |  |
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|         |           |  |

| Application No.     | Applicant(s)     |
|---------------------|------------------|
| 10/727,979          | KATAGIRI, MASAKI |
| Examiner            | Art Unit         |
| Albert J. Gagliardi | 2878             |

| <b>/</b> | Rejected | - | - | (Through numeral)<br>Cancelled |
|----------|----------|---|---|--------------------------------|
| =        | Allowed  | - | + | Restricted                     |

| N | Non-Elected  | A |  |
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| ı | Interference | О |  |

| Α | Appeal   |
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| 0 | Objected |

| The color of the | Cla         | im  |          |                 |                 | D        | ate           |   |   |         |       | Cla          | im          |  |  |         | Date                               |                   |     |           | [    | Cla | im           |           |                 | , 1          | Date       |  |                 | _        |          |
|--|-------------|-----|----------|-----------------|-----------------|----------|---------------|---|---|---------|-------|--------------|-------------|--|--|---------|------------------------------------|-------------------|-----|-----------|------|-----|--------------|-----------|-----------------|--------------|------------|--|-----------------|----------|----------|
| 1  |             |     |          | 4               |                 | T        |               |   | Γ   |         |       |              | <del></del> | Т  |  |         | Π                                  |                   |     |           |      |     | <u></u>      |           |                 |              | ΙÌ         |  |                 |          | 1        |
| 1  | व           | ina | 8        | <u> </u>        |                 |          |               |   |   |         |       | ğ            | ina         |  |  |         | 1                                  |                   | 11  |           |      | آھ  | ا <u>ق</u> ا |           |                 | ļ            |            |  |                 |          |          |
| 1  | 듄           | ij  | 125      | 2               |                 | - i      |               |   |   |         |       | i <u>.</u>   | rig         |  |  |         |                                    |                   |     |           |      | iË  | įξ           |           |                 |              | li         |  |                 |          |          |
| 2  |             | 0   | 8        | +               |                 |          |               |   | 1   |         |       |              | 0           |  |  | 1       |                                    | - 1               |     |           |      | - 1 | 0            |           |                 |              |            |  | ŀ               |          |          |
| 2  |             | 1   |          | -               | -               | -        | +             | +                                       | ╁   | +       |       |              | 51          |  | +  | +-      | H                                  |                   | 1-1 |           |      |     | 101          | $\neg$    | $\top$          | 1            | Н          | ᅥ  | 十               | $\top$   | ╗        |
| 3  | -           |     |          |                 | -               | -+       | $\dashv$      | +                                       | ╅   | +       |       | _            |             | $\dashv$   | $\dashv$   | +-      | 1 1                                | +                 | 1-1 |           | :::: |     | 102          | _         | -               | 1            | Н          |  |                 | 十        | $\neg$   |
| 4  |             |     | -        |                 | $\dashv$        |          | +             | +                                       | +   | +-      |       |              |             | -+   |  | +-      | $\vdash$                           | +                 | +-  |           |      |     |              |           | -               | +-           | Н          | $\dashv$   | $\dashv$        | 十        | ヿ        |
| 5  |             |     | -        | -               | $\dashv$        | ─┼       | -             | +                                       | ╫   | +       |       |              |             | -1   | +  | +       | $\vdash$                           | $\dashv$          | +   |           |      |     |              | $\dashv$  | -               | ╁╌           | Н          | $\dashv$   | $\dashv$        | +        | ᅥ        |
| 6  | $\vdash$    |     | -        |                 | -               | +        |               | +                                       | ╫   | +       |       |              | 55          | $\dashv$   | +  | +       | ++                                 | _                 | +   | H         |      |     |              | -1        | $\dashv$        | +-           | Н          | ᅥ  | $\dashv$        | 十        | ᅥ        |
| 107  | -           |     |          |                 | -               | $\dashv$ | +-            | ┰                                       | ╬   | +       |       |              |             | +  | +  | +-      | +-1                                | $\rightarrow$     | +-  | -         |      |     |              |           | $\dashv$        | +            | $\vdash$   | $\dashv$   | $\dashv$        | +        | ᅱ        |
| S  | -           | _   | _        | -/              |                 | $\dashv$ | +             |   | +-  | ┿       |       |              | 57          | $\rightarrow$                                    | +  |         | +                                  |                   | +   | H         | #    | -   | 107          | -         | +               | +-           | Н          | -  | -               | +        | ᅱ        |
| 9  | -           |     | _        |                 |                 | -        | -             | +                                       | +   | +       | 1     |              |             | $\rightarrow$                                    | +  | ╁       | ╁                                  |                   |     | H         | ⊪    | -   | 107          | -         | +               | +-           | ╁          | $\dashv$   | -               | $\dashv$ | ᅱ        |
| 10   | $\vdash$    |     | _        |                 | $\dashv$        | -        | -             | +                                       | +   |         |       |              |             | $\dashv$   |  |         | ╁┈┼                                |                   | +   | H         | 4    |     |              |           |                 | +-           | $\vdash$   |  | +               | +        | ᅱ        |
| 111  |             |     | _        |                 | $\dashv$        | -        |               |   | +   | +       |       |              |             | $\dashv$   | -  | +       | ╁                                  | -                 | ╁┤  | Н         | -    |     |              | $\dashv$  | +               | +            |            |  | -               | +        | ᅱ        |
| 12   |             |     | -        |                 |                 |          | +             |   | +   | - -     |       |              |             | $\vdash$   |  |         | ╁                                  |                   | +   | Н         | :::} |     | 110          | -         |                 |              | $\vdash$   |  | -               | -        | $\dashv$ |
| 13   | L           |     | _        |                 | $\sqcup$        | _        | $\dashv$      | 4                                       | 4-  |         |       |              | 61          | $\vdash \vdash$                                  | - -  | 4       | +                                  |                   | 4-  | H         |      |     |              |           | -+              | +            | -          | $\vdash$   | $\dashv$        | $\dashv$ | $\dashv$ |
| 14   |             |     | +        | N               |                 | _        |               | 4                                       | 4   | _       |       |              | 62          | $\vdash$   | $\perp$  | +-      | 11                                 | +                 | +   | $\square$ |      |     | 112          |           | -               | +            | -          |  | +               | $\dashv$ | $\dashv$ |
| 15   |             |     |          | igspace         | Ш               | _        |               | $\perp$                                 | $\perp$   |         |       |              |             | $\vdash$   | $\perp$  | 4       | 1-1                                | $\perp$           | 4-  | $\square$ |      |     |              | -         |                 | +            | -          |  | $\dashv$        | -+       | $\dashv$ |
| 16   |             |     |          |                 |                 |          |               | _                                       | $\perp$   |         |       |              |             |  |  | 4_      | $\downarrow \downarrow \downarrow$ |                   | 4   | Ш         |      |     |              |           | _               | +            | -          | $\vdash$   | $\dashv$        | 4        | $\dashv$ |
| 17   |             |     |          |                 |                 |          |               | $\perp$                                 | $\perp$   | $\perp$ | ]     |              |             |  | $\perp$  | $\perp$ | $\sqcup$                           | $\perp$           | 4-  | Ш         |      |     | 115          | Ш         |                 | $\perp$      | _          | Ш  | $\dashv$        | _        | _        |
| 17   |             | 16  |          |                 |                 |          | $oxed{oxed}$  |   |   |         |       |              |             |  |  |         | $\sqcup$                           |                   |     | Ш         |      |     | 116          | $\square$ |                 | _            | <b> </b> _ | Ш  | $\dashv$        | _        | 4        |
| 18   |             | 17  |          |                 |                 | T        | $\Box \Gamma$ |   |   |         | ]     |              |             |  |  |         |                                    |                   |     | Ш         |      |     |              | $\sqcup$  |                 | 1            | <u> </u>   |  | _               | _        | _        |
| 19   |             | 18  | Γ        |                 |                 | $\neg$   |               |   |   |         |       |              | 68_         |  |  |         |                                    |                   |     |           |      |     | 118          |           |                 |              |            |  |                 | _        | _        |
| 120  |             |     |          |                 |                 |          |               |   | Т   | Т       | 1     |              | 69          |  |  |         | T                                  |                   |     |           |      |     |              |           |                 | 1_           | <u> </u>   |  |                 | $\perp$  |          |
| 1  |             |     |          |                 |                 |          |               |   | $\top$  | T       |       |              | 70          |  |  |         |                                    |                   |     |           |      |     | 120          |           |                 |              |            |  |                 |          |          |
| 122  |             |     | ÷        | N               |                 | 一        |               | $\neg$                                  | $\top$  |         |       |              |             |  | $\neg$   | $\top$  | $\Box$                             |                   |     | $\Box$    |      |     | 121          |           |                 |              |            |  |                 |          |          |
| 123  | <b></b>     |     |          |                 |                 | _        | $\neg$        | $\dashv$                                | +   | $\top$  | 1     |              |             |  |  |         |                                    |                   |     | П         |      |     | 122          |           |                 |              |            |  |                 | П        | $\neg$   |
| 24     + N     74     124     124     125     125     125     125     126     126     126     126     126     127     127     127     127     127     128     128     128     129     129     129     129     129     129     130     130     131     131     131     131     131     131     131     131     131     131     132     132     132     133     133     133     133     133     133     133     133     134     135     135     135     135     135     135     135     135     135  | <del></del> |     |          |                 |                 | $\neg$   |               | $\dashv$                                | +   | +       | 1     | ī.           | 73          | $\vdash$   | _  | 十       |                                    |                   |     | П         |      |     |              |           | $\neg$          |              | Т          |  |                 | П        |          |
| 125  | <b>-</b>    |     | _        |                 | Н               | -        | $\dashv$      | $\dashv$                                | +   | +-      |       |              |             |  | 1  | +       | 1                                  |                   | 1   | П         |      |     | 124          |           |                 |              |            |  |                 | T        |          |
| 26     76     126     127     126     127     127     128     127     128     128     128     128     128     128     128     128     128     128     128     128     128     129     129     129     129     130     130     130     131     131     131     131     131     131     131     132     133     133     133     133     133     133     133     133     134     135     135     135     136     136     136     137     137     137     138     138     138     138     138     138     138     138     138     138     138     138     138     138     138     138     139     140     140     140     140  | -           |     |          |                 | $\vdash$        | _        | _             | - -                                     | +   | +       | 1     |              | 75          | H  | 1  | $\top$  | 1-1                                | $\neg$            | _   | $\Box$    |      |     | 125          |           |                 |              |            |  |                 | $\neg$   |          |
| 27 + N     77     127     128     128     128     129     129     129     129     129     130     130     130     130     130     130     130     131     131     131     131     131     132     132     132     132     133 </td <td>-</td> <td></td> <td>H</td> <td><del>  ``</del></td> <td>H</td> <td><math>\dashv</math></td> <td><math>\dashv</math></td> <td>+</td> <td>+</td> <td>╅</td> <td></td> <td></td> <td></td> <td></td> <td><math>^{+}</math></td> <td>1-</td> <td>1-1</td> <td>十</td> <td>+-</td> <td><math>\Box</math></td> <td></td> <td></td> <td>126</td> <td>П</td> <td></td> <td>1</td> <td><math>\vdash</math></td> <td></td> <td></td> <td>ヿ</td> <td></td>   | -           |     | H        | <del>  ``</del> | H               | $\dashv$ | $\dashv$      | +                                       | +   | ╅       |       |              |             |  | $^{+}$   | 1-      | 1-1                                | 十                 | +-  | $\Box$    |      |     | 126          | П         |                 | 1            | $\vdash$   |  |                 | ヿ        |          |
| 28 + N     78     128       29 + N     79     129       30 + N     80     130       31     81     131       32     82     132       33     83     133       34     84     134       35     85     135       36     86     136       37     87     137       38     88     138       39     89     139       40     90     140       41     91     141       42     92     142       43     93     143       44     94     144       45     96     146       47     97     147       48     98     148       49     99     149  |             |     | -        | N               | -               | -        | $\dashv$      | +                                       | +   | +       |       |              | 77          | $\vdash$   | +  | +-      | +                                  | $\dashv$          | +   | H         |      |     | 127          |           |                 |              | T          |  |                 | ヿ        | $\neg$   |
| 29 + N     79     129       30 + N     80     130       31   31   32   32   33   33   34   34   34   34  |             |     |          |                 | $\vdash$        | $\dashv$ | $\dashv$      | +                                       | +   | +-      |       |              |             | $\vdash$   | $\dashv$   |         | +                                  |                   | +-  | Н         |      |     | 128          |           |                 | _            | 十          | Г  |                 | 寸        |          |
| 30 + N   80   130   131   32   32   33   34   84   134   35   36   37   38   88   88   138   39   39   89   39   39   40   41   41   42   42   42   43   44   44   44   44   | -           |     |          |                 | Н               | $\dashv$ | -+-           |   | ╬   | +-      | 1     |              | 70          | $\vdash$   | +  |         | +                                  | -                 | +   | H         |      |     | 129          | Н         |                 | $\top$       | T          | _  |                 | ヿ        | $\neg$   |
| 31     81     131       32     82     132       33     133     133       34     84     134       35     85     135       36     86     136       37     87     137       38     88     138       39     89     139       40     90     140       41     91     141       42     92     142       43     93     143       44     94     144       45     95     145       46     96     146       47     97     147       48     98     148       49     99     149   | -           |     |          |                 | $\vdash$        | -        | -+            | +                                       | ╁   |         | 1:::  | _            |             | <del>   </del>                                   | $\dashv$   | +       | 1-                                 | -                 | +   | -         |      |     | 130          | Н         |                 | +            | +          | -  | -               | 十        | $\neg$   |
| 32   82   132     33   83   133     34   84   134     35   85   135     36   86   136     37   87   137     38   88   138     39   89   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149  | 1           |     | +        | N               | $\vdash$        |          |               |   | +   | +       | -     |              |             | <del>                                     </del> |  | +       | 1                                  | $\dashv$          |     | 1-1       | -    |     |              | Н         | -               | +            | +-         | -  | $\vdash$        | -        | $\neg$   |
| 33   83   133   134     34   84   134   134     35   85   135   136     36   86   136   137     38   88   138   138     39   89   139   139     40   90   140   141     41   91   141   141     42   92   142   142     43   93   143   143     44   94   144   144     45   95   145   146     46   96   146   146     47   97   147   148     48   98   148   148     49   99   149   149  |             |     | $\vdash$ | ├               | $\vdash$        | $\dashv$ | +             | +                                       | +   | -       | -     | <del> </del> |             |  | +  | +       | ╂╾┤                                | +                 | +   | +-1       |      |     | 132          |           | -               | +            | ╁          | $\vdash$   | $\vdash$        | $\dashv$ | $\dashv$ |
| 34   84   134     35   85   135     36   86   136     37   87   137     38   88   138     39   89   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149  | -           |     | -        | $\vdash$        | $\vdash$        | $\dashv$ |               | +                                       | +   | -       | 4     | ├            |             |  | +  | +       | +                                  | -                 | +-  | +         |      |     | 132          |           | $\dashv$        | +            | ╁          | <del>                                     </del> | $\vdash$        | $\dashv$ | $\dashv$ |
| 35   85   135     36   86   136     37   87   137     38   88   138     39   89   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149  | -           |     | -        | ├—              | Н               | $\dashv$ | -             | +                                       | +   |         | 4:::: |              |             | ┝╌┤  | +  | +-      | +                                  | -                 | +   | +-1       |      |     | 124          | $\vdash$  | $\vdash$        | +            | +-         | -  | $\vdash$        | $\dashv$ | -        |
| 36   86   136     37   87   137     38   88   138     39   89   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149  |             | 34  | <b>├</b> | $\vdash$        | $\vdash \vdash$ | $\dashv$ |               | +                                       | +   | +       | -     |              |             | $\vdash$   | +  | +       | +                                  | +                 |     | +-1       |      | -   | 125          | $\vdash$  | -               | +            | ╁          | $\vdash$   | -+              | $\dashv$ | -        |
| 37   87   137     38   88   138     39   89   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149  |             |     | _        | <del> </del>    | $\vdash$        | $\dashv$ | +             | +                                       | +   | +       | -     |              |             |  | -  | +       | ┥━┤                                | -                 | +   | +         |      | -   |              | $\vdash$  |                 | +            | +          | -  | $\vdash$        | -        | -        |
| 38   88   138     39   90   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149  |             |     |          | ├-              | Ы               | $\dashv$ | $\dashv$      |   | -   |         | -     |              |             |  | -  | +       | ╂╼┤                                | -                 | +-  | H         |      |     | 130          | $\vdash$  | -               | +            | $\vdash$   | -  | $\vdash \vdash$ | $\dashv$ | $\dashv$ |
| 39   89   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149  | <u> </u>    |     | <u> </u> | <u> </u>        | -               | $\sqcup$ | $\dashv$      | _                                       | - -   | -       | 4     |              |             | $\vdash \downarrow$                              | _  | +       | +                                  | -                 | +-  | +         |      |     | 13/          | Н         | <del></del>     | +            | +          | -  | $\vdash$        | $\dashv$ | _        |
| 40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149  | <u> </u>    |     | <u> </u> | <u> </u>        | Ш               |          | _ _           | _                                       | _   |         |       |              |             |  | +  | _       | 4                                  |                   |     | +         |      |     | 138          | Ы         |                 | +            | $\vdash$   | -  | $\vdash$        | $\dashv$ | _        |
| 41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149  | L           |     | <u> </u> | <u> </u>        | Ш               | $\Box$   |               | $\bot$                                  | $\perp$   | $\bot$  | 4     |              |             | $\sqcup$   | _  | 4       | +                                  | $\perp$           | -   | $\square$ |      |     | 139          | $\vdash$  | -               | -            |            | <u> </u>   | $\vdash \vdash$ |          |          |
| 42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147     48   98   148     49   99   149  | L           | _   |          |                 | Ш               |          |               | $\perp$                                 | $\perp$   |         |       |              |             | $\sqcup$   |  |         | 4                                  | $\perp$           | 4-  | $\square$ |      |     |              | Ш         |                 | +            | ╄          | <b> </b>   | $\vdash \vdash$ | _        |          |
| 42 92   43 93   44 94   45 95   46 96   47 97   48 98   49 99  |             |     |          |                 | $oxed{oxed}$    |          |               |   | ᆚ   |         |       | <u> </u>     |             | $\sqcup$   | _  | _       | $\perp$                            |                   |     | $\square$ |      |     | 141          |           | $\vdash$        | _            | ↓          | <u> </u>   | $\sqcup$        | _        |          |
| 44 94   45 95   46 96   47 97   48 98   49 99  |             |     |          |                 |                 |          |               |   |   |         | ].    |              |             |  | $\perp$  | $\perp$ |                                    |                   |     | Щ.        |      |     | 142          | Ш         | $\vdash \vdash$ | +            | ـ          | <u> </u>   | $\sqcup$        | _        |          |
| 45 95   46 96   47 97   48 98   49 99  |             |     |          |                 |                 |          |               |   |   |         | J:    |              |             |  | _  |         | 1                                  | $\perp$           |     | $\sqcup$  |      |     |              |           | 1               | 4            | 4          | <u> </u>   | Ш               | _        |          |
| 46 96   47 97   48 98   49 99  |             |     |          | Ĺ               |                 |          | $\Box$        |   | $oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$ |         | F     |              |             | $\Box$   | $\perp$  | $\perp$ |                                    |                   |     | <u></u>   | ;    |     | 144          | _         | $\perp$         | $\perp$      | 1_         | <u> </u>   | Ш               |          |          |
| 46 96   47 97   48 98   49 99  |             |     |          |                 |                 |          | $\bot T$      | $oldsymbol{oldsymbol{oldsymbol{\Box}}}$ | $oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$ |         |       |              |             | $\Box$   | $\prod$  |         |                                    |                   |     |           |      |     |              | L         |                 | 1_           | _          | <u> </u>   | $\sqcup$        | $\Box$   | _        |
| 47 97   48 98   49 99  |             |     |          |                 |                 |          |               |   |   |         |       |              | 96          |  | ${oldsymbol{ol}}}}}}}}}}}}}}}$ |         |                                    |                   |     |           |      |     | 146          |           |                 | $\perp$      | _          | _  |                 | $\perp$  | _        |
| 48 98 148 149 99 149 149 149 149 149 149 149 149   |             | 47  | Π        | П               |                 |          |               |   |   | T       | 1:::: |              | 97          |  |  |         |                                    |                   |     |           |      |     |              |           |                 |              |            | Ĺ  |                 | ]        |          |
| 49 99 149 149  |             |     |          | Π               |                 | П        | 7             | T                                       | Т   | T       | 7     |              |             |  |  | $\perp$ |                                    | $\Box \mathbb{I}$ |     |           |      |     | 148          |           |                 |              | L          |  |                 | $\Box$   |          |
|  |             |     | Г        | T               |                 | П        | 丁             | 7                                       | 丁   | 1       | 1::   |              |             | П  |  |         |                                    |                   |     |           |      |     | 149          | $L^-$     |                 | $oxed{oxed}$ |            |  |                 |          |          |
|  |             | 50  | T        | T               | П               | П        | 一十            | $\neg$                                  | 十   |         | 1     |              | 100         |  |  | $\top$  | 1                                  |                   |     |           |      |     | 150          |           |                 |              | $\Gamma$   | L  |                 | ╗        |          |